

ALLERGY

# A BASIC MEASUREMENT IN EPIDEMIOLOGY IS WRONG

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[Eric Topol](#) highlighted a [WSJ feature](#) on BMI (or body mass index). The article basically says

The idea behind BMI was proposed in 1832 by the statistician Adolphe Quetelet, who wasn't trying to define a healthy weight but to model a bell curve or normal distribution of human body sizes. He studied heights and weights and observed that weight tended to increase not according to the cube of height but with its square. The Quetelet index was renamed the body-mass index in 1972 by physiologist Ancel Keys, but it still wasn't meant to measure the health of individuals, only to show trends among populations.

BMI calculation is wrong as an area increases according to length squared, but volumes according to length cubed.

Maybe it would be a nice bachelor etc thesis just ask 500 passengers during one busy morning at Munich airport and correlate their BMI with the body mass measured by a millimeter wave full body scanner?

Or using a laser scanner as a colleague recommended recently to me?